UNITED NATIONS

Convention to Combat Desertification

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GENERAL

ICCD/COP(1)/CST/1
20 June 1997

ORIGINAL: ENGLISH

COMMITTEE ON SCIENCE AND TECHNOLOGY
CONFERENCE OF THE PARTIES
First Session
Rome, 29 September - 10 October 1997
CST Agenda item 3

ADOPTION OF AGENDA AND ORGANIZATION OF WORK OF THE COMMITTEE ON SCIENCE AND TECHNOLOGY (CST)

Note by the Secretariat

Provisional agenda

1. Opening
2. Election of vice-chairpersons
3. Adoption of agenda and organization of work
4. Report on work of other bodies performing work similar to that envisaged for the CST
5. Survey and evaluation of existing networks
6. Benchmarks and indicators
7. Modalities and timing of future work on inventories of research and traditional knowledge; establishment of research priorities
8. Roster of independent experts and creation, if necessary, of ad hoc panel(s)
9. Other intersessional work

GE.97-61946

Annotations to the Agenda

Introduction

In accordance with paragraph 7 of the draft Terms of Reference of the Committee on Science and Technology (document ICCD/COP(1)/2), "(t)he Committee shall adopt a programme of work, which should include estimates regarding its financial implications. The programme of work shall be subject to approval by the Conference of the Parties."

Venue

Article 24, paragraph 1 of the Convention to Combat Desertification (CCD) provides that the Committee on Science and Technology (CST) shall meet "in conjunction with the ordinary sessions of the Conference of the Parties." The first session of the CST (CST 1) will therefore meet at the headquarters of the Food and Agriculture Organization of the United Nations (FAO) during the first session of the Conference of the Parties. Tentatively, CST 1 has been scheduled to meet 30 September - 1 October 1997.

Participants

Article 24, paragraph 1 of the CCD provides that the CST "shall be multidisciplinary and open to the participation of all Parties." Consistent with the provisions of article 22, paragraph 7, it is anticipated that sessions of CST will be open to observers in accordance with the draft rules of procedure.

Documentation

The CST will have before it the documents listed in Annex I. In addition to normal distribution, documents will be made available on the Secretariat's world wide web site at the following address on the internet: <http://www.unccd.ch>.

1. Opening

In accordance with rule 22 of the draft rules of procedure (ICCD/COP(1)/2), the Chairperson of the CST shall be elected by the Conference of the Parties (COP). This will occur at the opening meeting of the COP on 29 September 1997. The first session of the CST will then be opened on 30 September by the Chairperson of the CST.

2. Election of vice-chairpersons

In accordance with paragraph 6 of the draft terms of reference of the CST, the CST shall elect its own Vice-Chairpersons, one of which shall act as Rapporteur. Paragraph 6 of the draft terms of reference provides: "The Chairperson and the Vice-Chairpersons shall be elected with due regard to the need to ensure equitable geographical distribution and adequate representation of affected country Parties, particularly those in Africa, and shall not serve for more than two consecutive terms."

3. Adoption of agenda and programme of work

The CST will have before it this provisional agenda (ICCD/COP(1)/CST/1) for adoption. It has been prepared taking into consideration comments of members at the first part of the tenth session and submissions received subsequently, in accordance with the Committee's decision 10/11. A tentative schedule of work is found in Annex II.

Adoption of recommendations from INCD

Recommendations on the following matters in the domain of science and technology, which have already been agreed by INCD, will be referred to the COP for consideration and adoption at the plenary on 3 October 1997: decision 9/10 on the terms of reference of the CST, procedures for the establishment and maintenance of a roster of independent experts and procedures for the establishment of ad hoc panels.

New recommendations

Provision has been made in the CST schedule of the work for the drafting of necessary reports following discussion of the work of the CST during the afternoon of Wednesday 1 October 1997, including reports emanating out of discussions on the survey and evaluation of existing networks. Any new recommendations could also be dealt with at the plenary of the COP on 3 October 1997.

4. Report on work of other bodies performing work similar to that envisaged for the CST

In accordance with INCD decision 10/8, taken at the tenth session of the INCD, the Secretariat updated its work on identifying other bodies performing work similar to that envisaged for the CST (document ICCD/COP(1)/CST/4). The CST may wish to consider how to make use of this work in the context of the survey and evaluation of existing networks which may be authorised to be undertaken under agenda item 5.

5. Survey and evaluation of existing networks

In accordance with INCD decision 10/10, taken at the Committee's tenth session, the Secretariat solicited proposals for the undertaking of a survey and evaluation of existing networks, institutions, agencies and bodies willing to become units of a network to support the implementation of the Convention in accordance with its article 25. Executive summaries of the proposals will be circulated in documents ICCD/COP(1)/CST/3 and ICCD/COP(1)/CST/3/Add.1 prior to the first session of the COP, as required by the decision.

In decision 10/10, the INCD recommended that the CST review, at its first session, the draft terms of reference for the work to be undertaken and make appropriate recommendations to the COP for their adoption. It also recommended that, having duly considered the proposals, the CST recommend the most suitable contractor for consideration and approval by the Conference of the Parties at its first session.

The CST may also wish to consider how to deal with the follow-up of any decision it may take with respect to the commissioning of the survey and evaluation concerned, for example, by establishing a small group of experts (which could take the form of an ad hoc panel, to be appointed by the COP) to review a draft of the survey and evaluation and provide comments prior to its being finalized for a subsequent COP.

6. Benchmarks and indicators

In accordance with INCD decision 10/9, taken at the Committee's tenth session, the Secretariat continued the open-ended consultative process on benchmarks and indicators previously established by the INCD. A preliminary report of the process is contained in document ICCD/COP(1)/CST/3. A supplementary report will be issued to take account of additional work (document ICCD/COP(1)/CST/3/Add. 1).

The CST may wish to consider how to continue the work on benchmarks and indicators, and, in that connection, consider whether there would be any value in recommending to the COP the establishment of an ad hoc panel on this subject.

7. Modalities and timing of future work on inventories of research and traditional knowledge; establishment of research priorities

In its decision 10/7, taken at its tenth session, the INCD invited members to submit to the Secretariat suggestions on the modalities of CST work on (a) inventories of research, traditional and local technology, knowledge, know-how and practices, and (b) research priorities. It further requested the Secretariat to submit an expanded report on the subject, including modalities and timing, for consideration by the CST at its first session. The report is contained in document ICCD/COP(1)/CST/5.

8. Roster of independent experts and creation, if necessary, of ad hoc panel(s)

Under the provisions of article 24, paragraph 2 of the Convention, the COP is to establish and maintain a roster of independent experts with expertise and experience in the relevant fields. By its decision 10/11, the INCD requested the Secretariat to prepare a list of nominations received by 31 May 1997 and to submit such a list to the first session of the COP for establishment of the roster (ICCD/COP(1)/6). The CST may wish to review the list, and make recommendations to the COP respecting the composition of the roster and respecting any guidance the COP may wish to give to the Secretariat as to the appropriate format for it.

Under the provisions of article 24, paragraph 3 of the Convention, the COP may, as necessary, appoint ad hoc panels to provide it, through the CST, with information and advice on specific issues regarding the state of the art in relevant fields of science and technology. The CST may wish to consider recommending to the COP the establishment of any ad hoc panels which may be required.

9. Other intersessional work

The CST may wish to consider recommending to the COP whether and how any other intersessional work in the domain of science and technology should be undertaken.

Annex I

List of documents prepared for the first session of the Committee on Science and Technology

ICCD/COP(1)/CST/1	Adoption of agenda and organization of work of the CST
ICCD/COP(1)/CST/2	Survey and evaluation of existing networks
ICCD/COP(1)/CST/2/Add.1	Supplementary report on survey and evaluation of existing networks
ICCD/COP(1)/CST/3	Report on work on benchmarks and indicators
ICCD/COP(1)/CST/3/Add.1	Supplementary report on work on benchmarks and indicators
ICCD/COP(1)/CST/4	Report on work of other bodies performing work similar to that envisaged for the CST
ICCD/COP(1)/CST/5	Reports on modalities and timing of future work on inventories of research and traditional knowledge; establishment of research priorities

Annex II

	Tuesday 30 September 1997	
	09:00 AM	**02:00 PM**
C S T	Organization of work (Doc. ICCD/COP(1)/CST/1) - Review of outstanding items - Inventories of research, traditional knowledge (Doc. ICCD/COP(1)/CST/5) - Research priorities (Doc. ICCD/COP(1)/CST/5) - Benchmarks and indicators (Doc. ICCD/COP(1)/CST/3; and CST/3/Add.1)	- Survey and evaluation of existing networks (Doc. ICCD/COP(1)/CST/2; and CST/2/Add.1) - Other bodies doing work similar to that envisaged for CST (Doc. ICCD/COP(1)/CST/4)
	Wednesday 1 October 1997	
	09:00 AM	**02:00 PM**
C S T	- CST work programme - Establishment of roster of experts and creation of ad hoc panels as required (Doc. ICCD/COP(1)/6)	Report of CST to COP

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Convention to Combat Desertification

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21 July 1997

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CONFERENCE OF THE PARTIES
First Session
Rome, 29 September - 10 October 1997
CST Agenda item 5

SURVEY AND EVALUATION OF EXISTING NETWORKS

Note by the Secretariat

1. Pursuant to the provisions of paragraph 1 of Article 25 of the Convention to Combat Desertification (CCD), the Committee on Science and Technology is to make provision for undertaking a survey and evaluation of relevant existing networks, institutions, agencies and bodies willing to become units of a network to support implementation of the CCD.

2. By its decision 10/10, taken at its tenth session, the Intergovernmental Negotiating Committee for Desertification (INCD) invited the Secretariat to solicit proposals to undertake such a survey and evaluation and to arrange for circulation of executive summaries of these proposals in advance of the first session of the Conference of the Parties (COP 1).

3. Responses were received from the following organizations: The Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD); China National Center for Research and Development and Desertification Control; Permanent Inter-state Committee for Drought Control in the Sahel (CILSS); Desert Research Center, Egyptian Ministry of Agriculture and Land Reclamation; Sahara and Sahel Observatory (OSS).

4. By letters dated 17 and 19 June 1997, the Secretariat advised those organizations referred to in paragraph 3 that the United Nations Environment Programme (UNEP), on behalf of itself and a consortium of members, had requested an extension for filing until 31 July 1997, in case any such organizations wished to avail themselves of the additional time to add to or modify their submissions.

5. The submissions from the organizations referred to in paragraph 3, together with the UNEP submission and any additions or modifications to the summaries referred to in paragraph 4, will be annexed to document ICCD/COP(1)/CST/2/Add.1.

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Convention to Combat Desertification

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COMMITTEE ON SCIENCE AND TECHNOLOGY
CONFERENCE OF THE PARTIES

First Session
Rome, 29 September - 10 October 1997
CST Agenda item 5

SURVEY AND EVALUATION OF EXISTING NETWORKS

Note by the Secretariat

1. As indicated in document ICCD/COP(1)/CST/2, seven organizations, on their own behalves and in the case of one organization, on behalf of itself and a consortium of members, submitted proposals to undertake a survey and evaluation of existing networks.

2. By decision 10/10, taken at its tenth session, the Intergovernmental Negotiating Committee (INCD) recommended that the Committee on Science and Technology:

(a) review, at its first session, the draft terms of reference and make appropriate recommendations to the COP for their adoption;

(b) having duly considered the proposals, recommend the most suitable contractor for consideration and approval by COP 1.

3. Annex I contains the draft terms of reference approved by the INCD for this process.

4. Attached to this note in appendices I to VII are summaries set out in the order in which they were received from the following organizations 1/:

Appendix I - The Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD)

Appendix II - China National Center for Research and Development and Desertification Control

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1/ Appendices are reproduced as received by the Secretariat.

Appendix III - Permanent Inter-state Committee for Drought Control in the Sahel (CILSS)

Appendix IV - Desert Research Center, Egyptian Ministry of Agriculture and Land Reclamation

Appendix V - Sahara and Sahel Observatory (OSS)

Appendix VI - United Nations Environment Programme, on behalf of itself and a consortium of members

Appendix VII - Desertification and Desert Cultivation Studies Centre (DADCSC).

ANNEX I

DRAFT TERMS OF REFERENCE AND PROPOSED ORGANIZATION OF WORK TO BE UNDERTAKEN ON NETWORKING OF INSTITUTIONS, AGENCIES AND BODIES

1. Phases

Recognizing that a complete inventory and evaluation of all networks, institutions, agencies and bodies will be a lengthy process, it is proposed that the work plan of the survey and evaluation activity of the Committee on Science and Technology will need to be broken into three phases (A/AC.241/66, para. 7), namely:

(a) Identification of the principal potential units, particularly networks;

(b) A pilot, in-depth survey and evaluation of potential units in a particular region and subregion;

(c) Replication of the pilot survey and evaluation of units in other regions and subregions.

In all three phases, the units surveyed and evaluated will include governmental, intergovernmental, non-governmental, academic and other private sector entities. Pursuant to the proposed programme of work outlined above, the Intergovernmental Negotiating Committee seeks proposals for services from a competent contractor to carry out the preliminary survey and evaluation of "potential units, particularly existing networks" and to suggest a methodology for carrying out the second and third phases, for consideration at the first session of the Committee on Science and Technology.

2. Tasks expected to be completed by the contractor

(a) Identify the principal existing networks relevant to the effort to combat desertification and their role in areas such as information collection and exchange, research, technology transfer, benchmarks and indicators, capacity-building, policy formulation and local-level activities;

(b) Describe the actual components (including structure, mode of operation and willingness and capacity to contribute to the work of the Convention) as well as categories of users, and map their geographical distributions;

(c) Enumerate the information needs of actual and potential users and the extent to which such needs are being met in relation to the provisions of articles 16 to 19 of the Convention;

(d) Identify and describe the linkages among the principal networks, including gaps and possible overlaps;

(e) Elaborate the purposes, methods and benefits of strengthening networks at various levels;

(f) Develop criteria by which institutions, agencies and networks will be evaluated in terms of their capacity and effectiveness in contributing to the implementation of the Convention;

(g) Suggest:

(i) Methods and candidate regions and subregions for in-depth pilot surveys;

(ii) A practical cost-effective methodology to permit the Committee on Science and Technology to update the inventory of networks on a regular basis;

(iii) A strategy by which a global network of networks, institutions, agencies and bodies can be established for the purpose of supporting the implementation of the Convention.

3. Solicitation of bids from organizations

Immediately following the tenth session of the Committee, the interim secretariat shall invite competent organizations, such as those indicated in annex II, to submit proposals to carry out phase 1 activities. The proposals, which can come either from an organization individually or from two or more organizations jointly, must be received by the interim secretariat by 15 May 1997. Each proposal must be accompanied by an executive summary not exceeding six pages in length. Copies of the complete proposals will be available to the members of the Committee on Science and Technology on request.

4. Draft contract

The interim secretariat will prepare a draft contract for consideration and approval by the first session of the Conference of the Parties, upon recommendation of the Committee on Science and Technology.

APPENDIX I

Executive Summary of the Proposal About Establishing Networking Between Institutions Working In The Field Of Combating Desertification And Drought In The Arab World And Western Asia To Be Presented To The Interim Secretariat Of The International Convention To Combat Desertification In Those Countries Experiencing Serious Drought And/Or Desertification

The Arab Center for the Studies of Arid Zones and Dry Lands - ACSAD
Damascus - Syrian Arab Republic - Fax: 00 963 11 5323063

Desertification causes great anxiety to many regions in the world noting that this phenomenon has no limits and recognizes no political borders. Therefore, there is an urgent need to make a survey of all institutions concerned with desertification at the national, subregional and regional levels and link all these institutions through a specialized network which will be responsible for coordinating their activities and unifying their efforts and methodologies of work in the field of combating desertification.

It is proposed to establish work units at the national level to collect and coordinate the data from the national work units and coordinate between these units, and central work units at the regional level to unify all data and activities pertaining to desertification monitoring and control.

It is proposed that the administrative distribution of the Arab countries and Western Asia shall be as follows:

1. **At the national level:** this includes the ministries of agriculture and environment and the research institutes.

2. **At the subregional level:** this includes the countries of the area as follows:

- **Western Asia:**
  - Arab Mashreq (Syria, Lebanon, Jordan, Palestine and Iraq)
  - Arabian Peninsula (Saudi Arabia, United Arab Emirates, Qatar, Bahrain, Kuwait, Oman and Yemen)
  - Other: Iran, Afghanistan and Pakistan
- **Arab countries in Africa:**
  - Central (Egypt, Sudan, Somalia, Djibouti and Comoros)
  - Arab Maghreb (Libya, Tunisia, Algeria, Morocco and Mauritania)

3. **At the regional level:** this includes the Arab countries, Iran, Afghanistan and Pakistan.

4. **Budget:** The above networking project requires a total amount of US$ 1,007,000 for two years.

A Proposal About Establishing Networking Between Institutions Working In The Field Of Combating Desertification And Drought In The Arab World And Western Asia To Be Presented To The Interim Secretariat Of The International Convention To Combat Desertification In Those Countries Experiencing Serious Drought And/Or Desertification

Justifications:

Desertification is considered now as a major economic, social and environmental problem which causes great anxiety to many regions in the world, especially in the arid and semi-arid areas and leads to the loss of many natural resources and this threatens the world food security and hinders the sustainable development processes.

As the desertification phenomenon has no limits and recognizes no political borders, therefore it is necessary to unite all the efforts with the aim to control this phenomenon.

For this reason, there is a need to make a survey of all the institutions concerned with desertification at the national, subregional and regional levels. This requires linking all these institutions through a specialized network which will be responsible for coordinating the activities of these institutions and uniting their efforts and methodologies of work in the field of combating this grave phenomenon.

Objectives:

The project for establishing networking between the above institutions aims to:

1. Make a survey of the national institutions and identify their capabilities and local activities.

2. Coordinate between these institutions and unify the methodology of their work.

3. Link the national institutions with their counterparts at the subregional level.

4. Establish a regional database about the desertification phenomenon and the best methods for combating it.

Methodology:

The following is proposed for establishing the networking:

1. Establishing a work unit at the national level whose task is to collect, coordinate and tabulate the data within an agreed upon unified framework. This work unit will serve as a link between the national institutions and the subregional work unit.

2. Establishing subregional work units whose task is to collect data from the national work units and coordinate between these units. Also a subregional database can be established.

3. Establishing a central work unit at the regional level whose task is to unify all data, activities, and methodology of combating desertification and rehabilitate the natural resources in the concerned region. It is proposed that the Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD) shall act as the central work unit at the subregional level (Arab countries, Iran, Pakistan and Afghanistan).

4. It is proposed that the administrative distribution of the Arab countries and Western Asia shall be as follows:

At the national level: this includes the ministries of agriculture and environment, the research institutes, universities and the bodies concerned with desertification.

At the subregional level: the countries of the region are distributed as follows:

- Western Asia:
  - Arab Mashreq (Syria, Lebanon, Jordan, Palestine and Iraq)
  - Arabian Peninsula (Saudi Arabia, United Arab Emirates, Qatar, Bahrain, Kuwait, Oman and Yemen)
  - Iran, Afghanistan and Pakistan
- Arab countries in Africa:
  - Central (Egypt, Sudan, Somalia, Djibouti and Comoros)
  - Arab Maghreb (Libya, Tunisia, Algeria, Morocco and Mauritania)

At the regional level: the Arab countries (Iran, Afghanistan and Pakistan).

Activities:

1. Collecting (from different sources) data, maps, reports, statistics and research results pertaining to the desertification phenomenon and how to deal with it at the national level, including the green belts.

2. Coordinating different data, maps and reports at the subregional level.

3. Studying the maps, reports and data in a way consistent with the methodology of work in the other regions and the objectives of the International Convention to Combat Desertification.

4. Establishing a database for documenting all the available data at the regional level to serve as a basic reference for all subjects pertaining to desertification and drought and the methods for combating them in this area of the world.

5. Organizing training courses, workshops and field days to transfer the knowledge and exchange the techniques about desertification monitoring and control.

6. Putting forward a proposal for the required data network (its structure, components, activities and cost) according to the methodology proposed in this document.

Inputs:

1. Personnel

- Project coordinator
- At the national level: a work team composed of (1) expert, (3) engineers and a secretariat
- At the subregional level*: a work team composed of (1) expert, (3) engineers and a secretariat
- At the regional level**: a work team composed of 2 experts, (6) engineers and data specialists and a secretariat.

2. Equipment

- At the national level: fast means of communication + fax + electronic mail
- At the subregional level: fast means of communication + fax + electronic mail + computer
- At the regional level: fast means of communication + fax + electronic mail + data processing unit in addition to an integrated (GIS) unit. It is possible to benefit from the equipment available now at the project for Desertification Monitoring and Control at the Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD).

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* The group of countries belonging to one subregion.

** The group of Arab countries in addition to other countries from Western Asia such as Iran, Pakistan and Afghanistan.

BUDGET

for (2) years

PERSONNEL	
Project coordinator	60 000
Experts (7)	336 000
Data specialist (1)	36 000
GIS specialist (1)	36 000
Secretaries (5)	144 000
Tasks at the national level	100 000
Tasks at the subregional level	40 000
Tasks at the regional level	20 000
EQUIPMENT	
Means of communication	10 000
Computers	30 000
GIS Unit	75 000
WORK INPUTS	
Consultation	10 000
Printing	5 000
Coordination	5 000
Expenses	10 000
Training courses	30 000
Workshops and field days	30 000
Public relations	10 000
Total in US Dollars	1 007 000

STRUCTURE

Regional level	**Regional centre**				
Subregional level	Arab Mashreq	Arabian Peninsula	Central region	Arab Maghreb	Western Asia
	Syria	Saudi Arabia	Egypt	Tunisia	Iran
National level	Lebanon	U.A.E.	Sudan	Libya	Afghanistan
	Jordan	Qatar	Somalia	Algeria	Pakistan
	Palestine	Bahrain	Djibouti	Morocco	
	Iraq	Kuwait	Comoros	Mauritania	
		Oman			
		Yemen			

APPENDIX II

China National Center for Research and Development
and Desertification Control

Proposal for survey and evaluation on network

1. Contractor

China National Center for Research and Development and Desertification Control is able to carry out the preliminary survey and evaluation of "potential units, particularly existing networks" (see attached). It will be finished in one year.

2. Method for in-depth pilot surveys

It will be formulated after the preliminary survey and evaluation.

3. Candidate region and subregion for in-depth pilot surveys

Phase II in Asia and Africa.

Phase III in other regions and subregions worldwide.

Phases II and III shall be finished in one year.

4. Practical cost-effective methodology to permit the CST to update the inventory of networks on a regular basis

It is to establish an information centre in Beijing, P.R. China for a global network of networks, institutions, agencies, and bodies.

5. Strategy by which the global network can be established for the purpose of supporting implementation of the Convention

It is to establish a regional representative of the Beijing center in Africa, Asia, Latin America, and northern Mediterranean respectively.

Background of China as a candidate contractor to carry
out the preliminary survey and evaluation

(a) China is one of UNCCD Country Parties. UNCCD has been ratified by China in December 1996.

(b) China's Action Plan for implementation of the UNCCD has been formulated.

(c) China has accumulated a lot of experience, know-how and successful techniques during the experiencing of combating desertification over a long period of time.

(d) Two meetings have been sponsored in Beijing, the Asia-Africa Forum on Combating Desertification (August 1996) and the Asian Ministerial Conference on the implementation of UNCCD (May 1997).

(e) China is applying the UNDP project "Capacity Building and Demonstration for the Implementation of the UNCCD in China".

(f) By now, nine national research institutions, and ten universities, colleges, departments, have been engaged in combating desertification in China. The research institutes have been staffed with 3,500 scientists in the field, especially in recent years, the researches have been animated by participation of many PhD degree graduates returning from abroad.

(g) China is applying for the establishment of the Asian and African Research, Development and Training Center on Combating Desertification in Beijing.

(h) China National Center for Research and Development and Desertification Control is an open, high level, interdisciplinary and comprehensive research institution engaged in combating desertification. It is mandated by the Chinese Academy of Forestry which keeps friendships with 50 countries and 40 international organizations.

(i) China National Center for Research and Development and Desertification Control is preparing a publication of experts, major research institutions, universities, colleges, related to combating desertification in Asia and Africa.

APPENDIX III

Permanent Inter-State Committee for Drought Control in the Sahel (CILSS)

Proposal from CILSS to undertake the complete survey and evaluation of all networks, institutions, agencies and bodies on the Committee on Science and Technology (CST)

I. Justification

The Permanent Inter-State Committee for Drought Control in the Sahel (CILSS), which since its foundation in 1973 has worked with its member States to combat desertification and mitigate the effects of drought, welcomes the invitation from the CCD secretariat which will enable it to contribute effectively to the work to be assigned to the Committee on Science and Technology (CST).

The two specialized CILSS institutions, the Sahel Institute (INSAH) and the Regional Centre for Training and Application in Agrometeorology and Operational Hydrology (AGRHYMET), have the necessary human and physical capacity to carry out a complete evaluation of all networks, institutions, agencies and bodies in the region, as indicated in document A/AC.241/66, paragraph 7, by:

(a) Surveying the principal potential units;

(b) Conducting a pilot, in-depth survey and evaluation of potential units in a particular region or subregion;

(c) Replicating the pilot survey and evaluation in other regions and subregions.

II. Motivation

Owing to its organizational structure and, in particular, its specialized institutions and its experience in combating desertification and mitigating the effects of drought, CILSS has a genuine interest in surveying and evaluating institutions, both making use of national systems (research and development, meteorology, hydrology, waters and forests, monitoring and follow-up facilities ...) and in collaboration with scientific and technical partners (universities, specialized institutions and centres, bilateral and multilateral international organizations), NGOs and the peasant organizations which it has just helped to develop a platform for action.

With an accumulated fund of experience on different networks around the AGRHYMET Centre and INSAH, CILSS has assets which give it good reason to survey and evaluate the various networks and institutions that should cooperate in implementation of CCD.

III. Operational capacity

CILSS and CEDEAO are lead agencies for the implementation of the Convention in West Africa. As required by the Convention, organizational structures - the national coordinating bodies (NCBs), responsible for monitoring CCD implementation - have been set up with support from the National Science and Technology Committees.

3.1. The AGRHYMET Regional Centre

3.1.1 Functions

The AGRHYMET Regional Centre has a number of functions which should bolster its activities in providing information and training with a view to sustainable management of the Sahel's natural resources and food security. These functions are:

- gathering and processing data from the entire subregion as a contribution towards food security and the management of natural resources;

- conducting applied research on problems common to the countries of the subregion, and developing new technologies;

- collecting and disseminating information to the services in the CILSS bodies that define regional policy, and to the various users in the Sahel and the international community;

- training staff from countries in the subregion to give them a suitable specialization in climatology, agrometeorology, hydrology, plant protection, the management of natural resources or equipment maintenance;

- establishing a documentation and distribution centre and providing technical assistance to States participating in its activities;

- maintaining close contact with research institutes, relief agencies African and foreign universities and African or international inter-State bodies in order to keep its activities current; participating in studies and projects conducted in collaboration with those bodies;

- coordinating all activities at the regional level under the heading of AGRHYMET-based programme implementation.

The Centre has extensive technological facilities, enabling it to engage in meteorological, agrometeorological, agricultural, phytosanitary and hydrological monitoring on a subregional scale in close liaison with CILSS member countries. It is developing methodologies for product formulation and is transferring knowledge and know-how to the various national technical services (agriculture, meteorology, hydrology, plant protection, environment, farm statistics, waters and forestry, etc.).

3.1.2 Technological and human capacities

The AGRHYMET Centre's technological facilities include:

(a) Computer technology

- two VAX 4,000-200 minicomputers;
- six UNIX workstations;
- dozens of Pentium-compatible microcomputers;
- a variety of peripherals on the multitask machines: magnetic tape readers, Exabyte and TK 70 cassette players, optical discs and graphical and Postscript printers.

(b) Satellite data, reception and processing facilities

- two NOAA/AVHRR and METEOSAT/PDUS low-resolution satellite image acquisition stations;
- one NOAA image-processing configuration running Land Analysis System software (LAS);
- one system producing 10-day syntheses of METEOSAT rainfall estimates;
- a library of high-resolution image processing software (ERDAS/Image, LAS).

(c) Geographical Information System Laboratories (SIG)

- powerful microcomputers, including two Sun Sparc 10 workstations;
- graphic analysis and data management software; IDRISI, ARC-VIEW, ARC/INFO, GMS, etc.;
- various data banks: climatology, hydrology, socio-economic, farm statistics, geo-referenced cartographic data, etc.

(d) Network and telecommunications

- local network on Internet-standard bus serving various units at the Centre: the network also permits communications between different systems (VMS, Windows, UNIX) and between them and peripherals, and optimizes their management through data interchange;
- electronic mail over RIO and INMARSAT nodes;

- INMARSAT satellite telecommunications between the Centre and CILSS member countries (data and image transfer);

- online Internet access.

(e) National components

The AGRHYMET Regional Centre is also one component of a satellite and ground data collection, management and analysis network, producing and disseminating information which embraces the nine member countries of CILSS. The network brings biophysical and socio-economic data together at the national level and at the Regional Centre. Two satellite reception stations at the Regional Centre and other units in the various countries complement the ground-based system for biological data collection.

In each country, a national component serves as a technical way station for national-level AGHRYMET activities, from data collection, management and analysis to the generation and distribution of information.

The arrangements for follow-up and data collection at the national level rely on multidisciplinary working groups, coordinating bodies set up right at the national technical services, projects and institutes working in the same areas as the AGRHYMET Centre.

3.2 The Sahelian Institute (INSAH)

INSAH is a specialized CILSS institution which came into being in 1976.

INSAH's mission in carrying out the CILSS mandate is to help member States, by means of research and development, to define strategies and set up programmes to help them attain food security without damaging the environment. To do so, INSAH applies itself to:

- Conducting studies and research in order to suggest development options for food security, natural resource management and population management in the Sahel;

- Coordinating and promoting scientific and technical research as a development tool in CILSS States;

- Providing training in order to make good use of achievements and help to develop a regional critical mass of human resources able to organize and manage sustainable development;

- Fostering the development of a regional scientific and technical space.

As part of an effort to promote regional integration, INSAH's activities cover countries in West Africa besides the nine CILSS countries.

To accomplish its mission, INSAH has two (major) programmes: agro-socio-economic research, and population/development.

3.2.1 Major programme - agro-socio-economic research

The strategic object of this programme is to put forward options for easing the agro-socio-economic constraints on lasting development in the Sahel. By so doing it will further the implementation of CCD, in particular article 17 on research and development. It embraces five operational objectives:

- Developing the institutional capacity of national agricultural research systems with a view to the better management and programming of agricultural research and evaluation of its impact;
- Improving knowledge in order to support policy and strategy in the areas of food security, natural resource management and action to combat desertification by means of studies and research;
- Speeding the creation of appropriate technology while preserving ecosystems;
- Proposing strategies and methodological tools for education and communication on environmental education matters with a view to the sustainable management of the Sahelian environment;
- Strengthening the capacity of INSAH and national farm research systems as regards documentation and scientific and technical communications, with a view to making better use of research findings.

3.2.2 Major programme - population/development (CERPOD)

The strategic objective is to put forward options for easing demographic constraints on sustainable development in the Sahel.

It is easy to see that INSAH and the AGRHYMET Centre are institutions which have been conducting work similar to that planned by CST for over 20 years. Their skills can be placed at the service of other African subregions as part of the implementation of CCD.

IV. Methodology

Under the leadership of CILSS and its two institutions (INSAH and AGRHYMET), a group of technical partners operating in the CILSS zone with which similar work has already been done will be set up. The CCD National Coordinating Bodies will be put on notice to play the main coordinating role in their respective countries.

The following activities will thus be undertaken:

(a) Activities in individual countries

1. Establishment of national interdisciplinary teams.

2. Planning and survey of work: bibliographical summary, identification and list of structures, inquiries of the structures identified.

3. Preparation of the national report.

The national teams will include specialists covering research and development, the training and research system at universities and specialized schools, the early-warning and forecasting system, NGOs and other private bodies.

(b) Regional-level activities

CILSS and its partners will undertake to:

1. Produce a method to be used uniformly by all national teams: terms of reference, evaluation criteria, survey questionnaire, national report outline;

2. Arrange a regional programming and survey start-up workshop: methodological fine-tuning, establishment of the schedule and detailed budget, signature of the survey protocol;

3. Backstop for national teams: check whether the work performed conforms to forecasts, compliance with methodology, due impartiality, and make corrections as necessary;

4. Combine the national reports and submit the final report.

The following successive phases will apply:

1. Preparation of the terms of reference for national teams by CILSS.

2. Identification by the National Coordinating Bodies of four national consultants.

3. Programming and survey start-up workshop. Signature of the protocol of agreement between the national teams and CILSS.

4. Commencement of the survey by national teams.

5. Support and follow-up visits by CILSS and its associates.

6. Preparation and submission of national reports.

7. Synthesis and submission by CILSS of the final report.

V. Budget

The estimated budget is intended to cover all West African countries and Chad.

These countries are: Benin, Burkina Faso, Cape Verde, Chad, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.

The budget covers two levels: national and subregional.

(a)	National level (US$)	
-	consultants' honoraria per country	504,000
-	transport for field visits	77,000
-	per diem for consultants on field visits	109,000
-	national reports (1,200 x 17)	20,400
(b)	Subregional level (US$)	
-	subregional programming and start-up workshop	50,000
-	methodological support	6,000
-	support and follow-up visits	30,000
-	synthetic report	3,000
	Grand Total	800,200

APPENDIX IV

Desert Research Center, Egyptian Ministry of Agriculture and Land Reclamation

Proposal for Survey and Evaluation on Network Submitted to Interim Secretariat of the Convention to Combat Desertification

2. Tasks expected to be completed by the contractor (paragraph 2 of Annex I)

2-(a) The concerned networks include National, Regional and International levels, among which the National one is of a great interest.

2-(b) The actual components of DRC local network include:

- **Satellite Receiving Station:**

The station was established in 1990 as a project of the World Bank; the executive agency for this project is the Food and Agriculture Organization (FAO) in Rome.

Satellites provide information on aspects of desertification such as regional sand dune migration and vegetation cover degradation. The station is an important node in the African network; areas suitable for reclamation can thus be identified.

The station, which is considered by the Observatory of Sahel and Sahara (OSS) to be a model for rainfall evaluation in Egypt and surrounding countries, cooperates with other foreign organizations, as well as with Egyptian universities and research centers.

Basic socio-economic and technical indicators for investment and locations of land reclamation projects for the public and private sectors in Egypt, funded by the French Food Aid counterpart fund, started from 1994.

This project already established the physical backbone of DRC network which extends to 48 users at present, with ability to future extension up to 128 users on the same design.

This network will be supported with leased lines, which provide dedicated Internet for corporation with the advantages of 24 hour access potential for establishing a prestigious Internet presence through publishing tools such as the Worldwide Web and Gopher and potential for establishing a manual server at the corporation for sending and receiving electronic mail.

2-(c) No comments.

2-(d) The network is linked with the DRC, North Sinai Research Station for collecting meteorological and hydrological data and monitoring the environmental changes in such areas. The other networks are:

FAO - CIHEAM Small Ruminants Research
ACSAD
SSO
ICARDA

The four networks are relevant to the efforts of combating desertification in such areas in information collection, exchange and research.

The required items are:

- Information collection.
- Research and development through cooperation in the field of desertification control and drought resistance.
- Technology transfer adaptation and development.
- Extension service and training.

The linkage between these networks includes: scientific cooperation through meetings, conferences, workshops, exchange of experts and training programmes.

Gaps are: insufficient funds of collaborative projects. Funds are not available for executing new integrated projects.

2-(e) The purposes of strengthening networks at various levels are: Identification of causes of desertification problems and their impact on natural resources.

The natural resources (soil, water, plant, animal) are subjected to deterioration due to several factors, some of them are well defined and others are not. Some information concerning specific deteriorated resources is available whereas a lot of information is still lacking.

Meanwhile, there is an overlap between studies concerning the monitoring of the degree of desertification.

Therefore, it is essential to conserve, develop and increase the potentialities of the existing natural resources.

This could be achieved through establishing and developing efficient networks to cope with the aims of the convention.

The benefits of strengthening these networks would assist in compiling and updating the essential data necessary to combat desertification. It would also help in a thorough evaluation of potential lands for sustainable desert development.

2-(f) The necessary criteria for evaluation should include:

- Availability of specialized experts in the field of desertification.

- The awareness of these experts with aspects of desertification problems and their monitoring and assessment.

- Multi-disciplinary activities related to the problem concerned, i.e. soil, water, plant and animal resources.

- Availability of data base and geographical information concerning the whole desertification problems.

- Existence of specialized experimental research stations and pilot demonstrations areas.

- Providing extension services and training programmes.

- Equipped laboratories and facilities for implementation.

- Availability of meteorological and monitoring stations.

- Ease of communication and integration

2-(g) Suggestions:

(i) Methods are:

Measurement and assessment of hazards related to the problems concerned such as:

- Soil erosion (by wind and water).

- Salinization and deterioration of potential land and water resources.

- Mobility and translocation of sand dunes and sand encroachment.

- Physical, chemical and biological land and water deteriorations.

- Climatic constraints.

- Topographic constraints.

- Techno-socio economic systems.

- Grazing pressure measurements.

- Carrying capacity.

- Approaches of range management.

- Range - animal interactions.

- Range ecosystems.

- Renewable energy resources.

- Correction measures of the ecosystems.

- Drought management.

Physiographic regions are:

1. Sinai Peninsula
2. Delta and Nile Valley fringes
3. Western Desert, including:

    - North western coast of Egypt
    - Siwa Oasis
    - Natural excavations
    - South new valley area
    - Lake Nasser Shores

4. South eastern part of the Eastern Desert

(ii) Through data collection and research works (a budget will be considered upon request).

(iii) The strategy will be:

1. Exchange of scientific information.
2. Exchange of experts.
3. Collaborative projects.
4. Workshops and meetings.
5. Establishing a specific bulletin for the network activities.

A list of equipments and programmes available at DRC premises is given.

Multiscope, ERDAS, ARC/INFO
Prodiges, Sharp, Image proof

N°	Type	Trade
1	Graphic	IRIS
2	Graphic & Text	Oce
1	Graphic & Text	Sanspare
1	Graphic & Text	Epson
2	Graphic & Text	Epson

N° of PCs	Ethernet	Fax Modem	N° of	Media For PCs	Archival Capacity	Memory	PROC
2	Yes	No	No	Dos	540 Mega	4 Meg 9	MD (IBM pc)
4	"	"	"	"	540 Mega	8 "	Cary page 486
2	"	Yes	Yes	"	750 "	16 "	Nordix (Pentium)
1	"	No	"	"	340 "	4 "	Compag 386
1	No	"	No	"	640 "	1 "	Tandy 4000
1	"	"	"	"	20 "	640 KB	Tandy 1000
1	"	"	"	"	50 "	64 KB	Compag

Spark Station

Upgradable	Network	N° of Station	Archival Capacity	Memory	Media	Trade	Sunspark
Yes	Ethernet	2	5 Gega	32 Mga	Unix	Sun	SunSpace2
Yes	"	4	3 "	32 "	"	Sun	
Yes	"		5 "	32 "	"	Sun	20
Yes	"		1 "		"	Sun	20
	"		1 "		"	Sun	20

APPENDIX V

SAHARA AND SAHEL OBSERVATORY

TENDER FOR THE CCD COMMITTEE ON SCIENCE AND TECHNOLOGY

SURVEY AND PRELIMINARY EVALUATION OF POTENTIAL UNITS, IN PARTICULAR EXISTING NETWORKS

Execution by:

Sahara and Sahel Observatory (OSS)

Permanent Inter-State Committee for Drought Control in the Sahel (CILSS)

Inter-Governmental Authority for Development (IGAD)

International Institute for Environment and Development (IIED)

UNESCO

Arab Maghreb Union (AMU)

Other competent organizations

Project duration: one year

Project start-up: as of contract signature

Project cost: US$ 184,000

BACKGROUND

Article 25 of the United Nations Convention to Combat Desertification, "Networking of institutions, agencies and bodies", stipulates in paragraph 1 that "the Committee on Science and Technology shall, under the supervision of the Conference of the Parties, make provision for the undertaking of a survey and evaluation of the relevant existing networks, institutions, agencies and bodies willing to become units of a network. Such network shall support the implementation of the Convention."

Referring to this article, INCD at its tenth session asked the interim secretariat to invite certain institutions to tender for the survey and evaluation called for in article 25 of the Convention of existing networks, institutions, agencies and bodies willing to become units of a network which would support the implementation of the Convention.

The mandate for the work to be undertaken, as agreed by INCD, envisages three phases (cf. document A/AC.241/66, para. 7):

(a) surveying the principal potential units, particularly networks;

(b) a pilot in-depth survey and evaluation of potential units in a particular region and subregion;

(c) replication of the pilot survey and evaluation in other regions and subregions.

The work to be done by the contractor relates to the first phase.

OSS and IIED, in conjunction with other institutions (UNESCO, CILSS, UMA, IGAD) have drawn up this tender for the work.

Other organizations may be associated, notably those with scientific and technical networks in Asia and Latin America.

WORKING APPROACH

OSS, as principal contractor, has based its approach on the following principles which, it believes, both match the spirit of the Convention and best answer to the objectives of the project.

Working in partnership

The extent of the work required makes it necessary to work in partnership with other competent institutions and to take advantage of the skills of other partners with their own networks.

OSS has already carried out several surveys directly related to the scope of articles 16 to 19 of the Convention, including surveys on follow-up and evaluation (inventory of management information services in Africa) and environmental indicators. It is currently setting up an information system on desertification in Africa, that relies heavily on the use of the Internet.

OSS has also developed numerous working relations with international organizations (UNDP/UNSO, UNEP, FAO) and international and non-governmental organizations such as IUCN. It will contact these organizations in order to put the information available to good use within the United Nations system.

Thanks to its special links with the Club du Sahel, OSS will have the Club's backing in gaining access to information available in certain bilateral cooperation agencies and at OECD.

UNESCO is working on a number of scientific and technical programmes that draw on worldwide or regional scientific networks and involve activities often akin to those required to combat desertification.

UNESCO is prepared to support OSS in the implementation of this project, providing any information on existing networks and in making use of its specialized databases.

The British NGO, IIED, is recognized worldwide for its social science research in the field of natural resource management in arid zones.

The contractors and the CCD Permanent Secretariat will form a steering group to provide follow-up.

The Institute has developed a dense network of relations with numerous partners throughout the world, including networks of NGOs active in natural resource management in arid zones.

IIED is willing to take part in the project by, among other things, making use of its database on the networks and institutions it has identified.

Priority for Africa

The project covered by this tender will survey institutes and networks worldwide. In accordance with the Convention, however, OSS proposes to give priority to Africa, at least in the initial collection of information.

In this spirit OSS has sought the cooperation of its African partners represented in CILSS, IGAD and AMU.

CILSS, an organization that specializes in combating drought, has developed a number of programmes to counter desertification. It has two subregional, specialized scientific and technical institutions: AGRHYMET and INSAH. These have their own subregional and international collaboration networks in their respective scientific domains.

AMU and IGAD, subregional focal points for the preparation of programmes of action, are also planning to survey scientific and technical institutions and networks that may be able to help them with their subregional programmes of action.

Making use of existing information

A considerable amount of work has already been done internationally to survey institutions and organizations working in areas directly or indirectly related to action to combat desertification.

For example, a number of United Nations system organizations, such as FAO, UNDP and UNEP, had already produced listings of scientific institutions and organizations before the Convention to Combat Desertification was drafted.

The same kind of work has been done in documentary or database form in bilateral cooperation agencies such as the International Development Research Centre (IDRC) in Canada and the Gesellschaft für technische Zusammenarbeit (GTZ) in Germany.

To take account of what is already there, OSS and its partners will first analyse and make use of information available internationally and regionally. This will enable them to identify the principal institutions, agencies, bodies and networks which already have some scientific and technical experience of combating desertification.

Situating the project in an overall perspective

According to the terms of reference, the object of the first phase of the study is to survey and evaluate institutions and networks that might become units of a worldwide network on which the Committee on Science and Technology could draw.

It is proposed that the network should serve as a tool for all parties working with the Convention, not just CST.

With this in view, the study should be conducted so as to yield relevant information on potential collaborations in the areas specified in articles 16-19 of the Convention.

The project has therefore been designed to give players in member developing countries easier direct access to centres with competence in various different scientific and technical domains, so that they can develop scientific cooperation, shared research programmes, documentary research and so forth.

The survey will also provide an opportunity to detect scientific skills other than those traditionally surveyed in efforts to combat desertification.

The Convention to Combat Desertification throws new light on the role of science and technology in efforts to combat desertification, laying emphasis on the collection, processing and dissemination of information and on research and development.

The means of investigation used (questionnaires included) must faithfully reflect the new requirements of the Convention and thus allow skills not yet sought in the domain of desertification proper to be made known.

WORKPLAN AND SCHEDULE

OSS proposes to take as its starting point one general objective drawn from the terms of reference, identifying all the necessary activities with reference to carefully circumscribed outcomes.

The results obtained will mark phases within the study and serve as milestones towards the objectives sought.

General objective

On analysis, the terms of reference put forward by the interim secretariat of CCD reveal a general objective which may be defined as follows:

CST and others working with CCD must have access to relevant information on scientific and technical institutions and networks that can support the implementation of the Convention.

Four outcomes are proposed to attain this objective, each of them encompassing a series of activities.

Outcome 1: Establishing an initial list of institutions and networks

Activities:

1. Identify different users' information needs, analysing articles 16 to 19 of the Convention;

2. Identify categories of institutions or networks that can provide the information required;

3. Conduct a preliminary survey of institutions and networks that can help to support the implementation of CCD.

Observation: this preliminary stage, based on existing information, should yield an initial list of institutions networks and agencies with recognized experience in the scientific domains covered by articles 16 to 19 of the Convention.

The field of investigation will be mapped out by reference to the relevant articles of the Convention.

Outcome 2: Producing a database on institutions and networks

Activities:

1. Produce a questionnaire;

2. Work together with the co-contractors and the interim secretariat on the content of the questionnaire and the list of institutions and networks to poll.

3. Launch the survey;

4. Recover and process the questionnaires;

5. Make the information available on different media: computers, Internet, CD/ROM, diskette etc.

Observation: during this phase, a dynamic system for managing the information collected will be devised in close association with the activities planned for the following phase. The various parties working with CCD should be able to make use of the processed information with the means at their disposal. This is the reason for proposing that the information should be made available on various media.

Outcome 3: Producing a methodology for the regular updating of the survey by CST.

Activities:

1. Produce a report on the methodology;

2. Design a computer-based data management system in the form of a database.

Observation: the database produced should admit of dynamic management by the Committee on Science and Technology, but also by the institutions concerned. The methodology should describe how regular updates can be performed by the different parties involved.

The database must be user-friendly and allow potential users rapid access to information of interest to them. Thus institutions can be presented by geographical region, topics or areas of competence, categories etc.

The database should also show the links between networks and institutions or organizations, and be designed to enable institutions to update information of concern to them.

Outcome 4: Devising a strategy for the establishment and operation of a worldwide network

Activities:

1. Produce an evaluation matrix for the ability of institutions and networks to help implement CCD;

2. Put forward a strategy for the establishment of a worldwide support network for the implementation of CCD.

Observation:

This stage will prepare for the two other phases foreseen in the Committee on Science and Technology's work programme for the establishment of a worldwide network:

- A pilot, in-depth survey and evaluation of potential units in a particular region or subregion; and

- The replication of the pilot survey and evaluation in other regions and subregions.

PROJECT DURATION

Project duration is estimated at one year beginning from the signature of the contract between OSS and the CCD secretariat.

BUDGET

The total budget for the services proposed is put at US$ 184,000.

CONTRACTUAL FRAMEWORK

OSS will be responsible for project coordination. It will represent its partners in relations with the Committee on Science and Technology. It will sign the contract, establish subcontracts with its partners and recruit consultants as needed, in accordance with the agreed plan of work.

PROJECT FOLLOW-UP

OSS will produce for the Committee on Science and Technology a six-monthly progress report in accordance with the operational plan appended.

FINAL REPORT

The final report, with all the attendant outputs, will be produced by OSS and its partners and submitted to the Committee on Science and Technology.

APPENDIX 1

Plan of operation

GENERAL OBJECTIVE: CST and others working with CCD must have access to relevant information on scientific and technical institutions and networks that can support the implementation of the Convention

Outcome 1: Establishing an initial list of institutions and networks

Activities	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	resources m/months	Budget estimate US $	Observations
1.1 Identify users' information needs by analysing arts. 16-19 of the Convention													0.25	2 000	
1.2 Identify categories of institutions or networks that can supply the information sought													0.25	2 000	
1.3 Conduct a preliminary survey of institutions and networks that can support the implementation of CCD													0.5	4 000	

Outcome 2: Producing a database on institutions and networks

Activities	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	resources m/months	Budget estimate US $	Observations
2.1 Draw up a questionnaire													0.25	2 000	
2.2. Work with co-contractors and the CCD interim secretariat on: - questionnaire content - list of institutions and networks to poll													0.25 + expenses of a working meeting	4 000 20 000	
2.3 Launch survey													5 + mission expenses	40 000	
2.4 Collect and process questionnaires														4 x 3 000	
2.5 Devise a data base structure suitable for the Web													1	8 000	
2.6 Load data													2	6 000	trainees
2.7 Make information available on various media: - internet access - CD-ROM - other media (1,000 copies)														10 000 20 000	bring in specialized institutions

Outcome 3: Producing a methodology for the regular updating of the survey by CST

Activities	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	resources m/months	Budget estimate US $	Observations
3.1 Produce a report on methodology													0.5	4 000	
3.2 Design a computer-based data management medium in the form of a data base														6 000	

Outcome 4: Instituting a strategy for the establishment and operation of a worldwide network

Activities	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	resources m/months	Budget estimate US $	Observations
4.1 Produce an evaluation matrix for the ability of institutions and networks to help implement CCD													0.5	2 000	
4.2 Propose a strategy for the establishment of a worldwide support network for CCD implementation													0.5 + working meeting expenses	4 000 15 000	

APPENDIX 2

BUDGET

Item	Quantity	Total (US $)
Expert assistance	12 m/months	78 000
Coordination meetings (two)	2 x 5 people x 3 days	35 000
Evaluation matrix		2 000
Production of documents on various media Computer processing		36 000
Missions	4	12 000
Coordination and management expenses		21 000
GRAND TOTAL		184 000

APPENDIX VI

Project Proposal

Submitted to the interim secretariat of the Convention to Combat Desertification and Drought (CCD) for consideration of the Committee on Science and Technology (CST)

by

The United Nations Environment Programme, the Coordinating Organization, on behalf of a Consortium of United Nations Organizations and specialized agencies and appropriate subregional and international and research organizations

Title of project: **Survey and evaluation activity for the Committee on Science and Technology**

Phase 1: **Identification, survey and evaluation of principal existing networks**

1. Background

With reference to article 25 of the CCD, the INCD, at its tenth session, approved the "networking of institutions, agencies and bodies" as one of the priority areas of the initial CST work programme. Accordingly, the CST shall, under the supervision of the Conference of the Parties (COP) undertake a survey and evaluation of relevant existing networks, institutions, agencies and bodies willing to become units of a network to support the implementation of the Convention.

The work plan of such a survey and evaluation activity for the CST will need to be broken down into three phases, namely: (1) identification of the principal potential units, particularly networks; (2) a pilot, in-depth survey and evaluation of potential units in a particular region and subregion; and (3) replication of the pilot survey and evaluation of units in other regions and subregions. In all three phases, the units (networks, institutions, organizations, agencies and bodies) surveyed and evaluated will include governmental, intergovernmental, non-governmental, academic and other private sector entities.

The INCD requested the interim secretariat to solicit proposals to carry out Phase 1 activities, in accordance with the draft terms of reference annexed to decision A/AC.241/WG.II(X)/L.5/Rev.1, from an indicative list of competent organizations also annexed to this decision.

The activities as outlined in the terms of reference, the types of entity to be evaluated and the global scope of the survey, would require the joint efforts of a wide range of institutions representing different regions of the world. For this purpose, UNEP is proposing a consortium of several competent organizations and institutions coordinated by UNEP to implement Phase 1 of this activity. This consortium which is composed of: the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the International Soil Reference and Information Centre (ISRIC), the

United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the United Nations Food and Agriculture Organization (FAO), the World Meteorological Organization (WMO), and the University of Arizona, have agreed to collaborate in implementing this preliminary survey and evaluation of networks, as outlined in Section 6 of this document, and have submitted proposals to UNEP, on which this project proposal is based.

UNEP also received positive responses to join the consortium or cooperate with the consortium from the Arab Centre for the Studies of Arid Zones and Drylands (ACSAD), the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS), the China National Research and Development Centre on Combating Desertification (RDCCD), the International NGO Network on Desertification (RIOD), the International Development Research Centre (IDRC) and the Sandia National Laboratories, USA. Some of these organizations have submitted separate proposals to the interim secretariat to undertake activities relevant to activities to be covered by this proposal. If the bid is successful such organizations would be requested to join or collaborate with the proposed consortium. Other partners would also be invited to join.

2. Project Outputs

The expected project outputs are:

(a) Questionnaire for identification of existing networks/units formulated;

(b) Criteria for evaluation of institutions, agencies and networks developed;

(c) Principal existing networks identified, and their roles defined in relation to specific articles in the Convention;

(d) Linkages among the principal networks, including gaps and possible overlaps identified and described;

(e) A database management system compiled showing information gained from the survey;

(f) Methodology for conducting the pilot in-depth surveys and evaluation of potential units in different regions and subregions and their replication in other regions developed;

(g) A cost-effective methodology developed for the regular updating of the network inventory;

(h) The Region and subregion to be surveyed in Phase 2 selected and prioritized;

(i) A plan of action for phases 2 and 3 formulated;

(j) A final project report prepared and submitted to CST.

3. Consortium-wide Activities

1. The formulation of a questionnaire for the identification of the principal existing networks/units for Phase 1. Introductory statements to the questionnaire should state the ultimate goal of creating a global network of institutions/units to help implement the CCD, and should elaborate the purpose and general benefits of strengthening networks at various levels to achieve this end. Questions might include:

(a) description of structure, geographical scope, mode of operation, and possibilities to work for the Convention of the unit surveyed;

(b) role in areas such as information collection and exchange, research, technology transfer, benchmarks and indicators, capacity-building, policy formulation and local-level activities;

(c) description of actual and potential users of the network/unit and of their information needs;

(d) identification of additional units to be contacted in Phases 2 and 3.

2. Identify networks/units to be contacted in Phase 1.

3. Send the questionnaires to these networks/units via e-mail, wherever possible, and by fax or mail if necessary.

4. Develop criteria for preliminary evaluation of all units contacted in terms of their general potential for working on implementation of the CCD, based on such factors as: committed staff, availability of resources, depth of experience in desertification work, level of activity, etc.

5. Based on these criteria, identify and describe the linkages among the principal networks, including gaps and overlaps.

6. Compile the information gained from the survey into a database management system and publish in print and Web formats, if deemed appropriate by the Consortium and the CST.

7. Prioritize and select the region and subregion to be surveyed in Phase 2 based on the preliminary evaluation conducted in steps 4 and 5 above.

8. Formulate a plan for phases 2 and 3 which will include: (a) a methodology for conducting the in-depth surveys; (b) a cost-effective methodology to regularly update the networks inventory; (c) a strategy to establish a global network for implementation of the Convention; and (d) criteria for evaluating network members in terms of their capacity and effectiveness in contributing to the implementation of the Convention.

4. Workplan and Timetable

Period	Activity	Responsibility
January-February 1998	Formulate questionnaire for identification of networks, and develop criteria for evaluation of networks	UNEP and UofA in consultation with Consortium members
March-May 1998	Identify Phase I networks/units using questionnaire	All Consortium members
June-August 1998	Identify and describe linkages among networks using criteria developed	UNEP and UofA in consultation with Consortium members
August-October 1998	Compile information on networks into a database	ISRIC and UNEP in consultation with Consortium members
September 1998 (?)	Submit a progress report to COP-II	UNEP
October 1998	Prioritize and select regions to be surveyed in Phase 2	UNEP, WMO, FAO, UNSO
November 1998	Formulate a plan for Phases 2 and 3	UNEP, WMO, FAO, UNSO
November 1998	Hold a synthesis workshop	UNEP
December 1998	Prepare the final report	UNEP in consultation with Consortium members

5. Project Costs and Cash Advance Requirements

UNEP being the coordinator of project implementation will estimate the aggregate cash requirements for the project for each quarter, using the project budget shown in Annex I. This will include a reasonable amount to cover "lead time" for the next remittance. A request will be sent accordingly to the Chief of Finance of the CCD Secretariat (on behalf of CST). In addition UNEP will submit a quarterly project expenditure account showing expenditures incurred for each sub-project. On the basis of the expenditure account and the request for an additional advance, the Chief Finance of the CCD Secretariat will remit funds to UNEP in the form of a lump sum for all sub-projects combined.

Each Consortium member involved in project implementation will estimate its aggregate cash requirements for each quarter, including a reasonable amount to cover "lead time" for the next remittance, and send a request accordingly to the Chief, Fund Programme Management Branch. In addition the Consortium member will submit a (sub-) project quarterly expenditure account. On the basis of the expenditure account and the request for an additional advance, the Chief Fund Programme Management Branch of UNEP will remit funds to the Consortium member in the form of a lump sum.

6. Institutional Framework, Responsibilities and Contributions

UNEP, in its function as coordinator of the Consortium, undertakes the responsibility for project implementation. This includes: signing the contract with CST on behalf of the Consortium members; establishing sub-contracts or sub-projects with Consortium members, in line with their proposed contributions and the consortium-wide agreed inputs; recruiting consultants for specific tasks as necessary and agreed by the Consortium; evaluating contributions and inputs, and preparing necessary reports.

Each member of the Consortium, or other collaborating organizations, is expected to interact with other partners in the Consortium to implement the project. In line with the terms of reference and based on specific expertise, knowledge and information, the Consortium member or collaborating organization will assume the responsibilities and provide the contributions as shown in Section 4 (Workplan and Timetable) of this document or as sub-contracted individually. A steering committee composed of Consortium members and collaborating organizations will advise on project implementation. During the implementation process additional tasks may be assigned to different Consortium members as required, according to their comparative advantages.

UNEP will contribute its experience, expertise and support to this effort to the extent possible within the programme of work approved by the Governing Council and the resources actually made available to it.

7. Monitoring and Reporting

UNEP, as the coordinator of the Consortium will monitor progress and establish a mid-term report on the basis of contributions and inputs received from Consortium members and collaborating organizations. UNEP, in close collaboration with the Consortium members and collaborating organizations, will prepare the terminal report and the submission of the agreed outputs to the CST.

UNEP shall submit quarterly project expenditure accounts and final accounts for the project, including all sub-projects, showing the amount budgeted for the year and, separately, the unliquidated obligations. The Consortium members and collaborating organizations shall submit to UNEP quarterly sub-project expenditure accounts and final accounts for the sub-project, showing the amount budgeted for the year and, separately, the unliquidated obligations.

8. **Responsibility for Cost Overruns**

A Consortium member or a collaborating organization is authorized to incur expenditures under any budget subline up to a maximum of 20 per cent over and above the amount foreseen in the project (sub-project) provided the total cost of the project (sub-project) is not exceeded. Any cost overrun on a specific budget subline above the 20 per cent shall be met by the Consortium members and the collaborating organizations unless prior agreement has been given by UNEP. Any cost overrun of the total of a sub-project shall be met by the Consortium member and the collaborating organization unless written agreement has been received in advance from UNEP, which in turn will seek agreement and confirmation that this eventual cost overrun will be met by the CST.

9. **Claim by Third Parties against UNEP**

Each Consortium member shall be responsible for dealing with any claims which may be brought by third parties against UNEP and its staff, and shall hold UNEP and its staff non-liable in case of any claims or liabilities resulting from operations carried out by the relevant Consortium member and collaborating organization under this project document, except where it is agreed by the Consortium member and the collaborating organization and UNEP that such claims or liabilities arise from gross negligence or wilful misconduct of the staff of UNEP.

Estimated Costs (US$) Phase 1

This estimated costing includes: 1. the costs that will be incurred by each of the six Consortium members as indicated below; 2. costs to cover project coordination, implementation, and holding of the synthesis workshop by UNEP; and 3. costs of sub-contracts to the collaborating organizations to provide regional, subregional and other inputs as and when need arises.

Budget items	UNEP	ICRISAT	ISRIC	University of Arizona	FAO	UNSO	WMO	Collaborating organizations
Costs of identification, survey and evaluation of networks including formulation of questionnaire and criteria	37 000	23 000	25 000	39 000	10 000	40 000	40 000	70 000
Coordination of project implementation and preparation of reports	70 000							
Holding of synthesis workshop	60 000							
Total	167 000	23 000	25 000	39 000	10 000	40 000	40 000	70 000
GRAND TOTAL								414 000*

APPENDIX VII

Desertification and Desert Cultivation Studies Centre (DADCSC)

Networking of Institutions, Agencies and Bodies
in IGAD Subregion

INTRODUCTION

General background

Present Situation in IGAD Subregion:

IGAD subregion occupies the north-eastern horn of Africa and comprises the countries of Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan and Uganda. It has a total area of 318 million hectares which represents 6 per cent of the world's arid, semi-arid and dry sub-humid lands (ASALS) and 25 per cent of Africa's ASALS.

IGAD was born 12 years ago to launch concerted and coordinated efforts to combat drought and other related natural disasters and their consequences in member countries (MCs).

UNCCD and Networking Perspective:

Previous international interventions (UNCOD, 1977) had minimal impact for various reasons including lack of an international holistic strategy to combat desertification, disregard to socio-economic factors and lack of adequate financial support. This promoted UNCCD, the call for which was made by the most seriously affected countries (African countries). It was initiated to strengthen local, national, subregional, regional and international cooperation and to give provisions of financial and technical support to developing countries so that these countries could effectively combat desertification and mitigate effects of drought by promoting sustainable development at the local community level according to the real need local people perceive.

The Parties of UNCCD recognized the need for an international bottom up coordinated action of the international community and provision of substantial financing and strategies based on systematic observations, scientific knowledge and continuous re-evaluation.

Article 3 (b) of UNCCD stated the guidelines to improve cooperation and coordination at subregional, regional and international levels to better focus financial, human, organizational and technical resources where they are needed. These issues were explicitly addressed in article 25 of the UNCCD. A well-defined mechanism was stated whereby the conference of parties (COP) will establish a network of institutions, agencies and bodies.

Networking in IGAD subregion

Institutions and networking in IGAD:

Under the provisions of the Agreement of the establishment of IGAD, the subregion was conceived as a coordinating agency with little executing and operational capabilities. In IGAD countries the number of institutions and organizations involved in desertification-related studies are many. The need for strong links and coordination at all levels seems apparent.

Present support in IGAD subregion:

In IGAD subregion there are five operational support environment information systems together with two more projects which are in the process of development (UNSO/UNEP/IGAD and EU/IGAD).

Limitations of existing IGAD network:

The existing national and subregional networks are constrained by various limitations, *inter alia*, lack of an effective coordination mechanism between the different sectors at the national level, lack of integrated national action programmes, affiliation of IGAD focal points to different Ministries, lack of coordination between MCs of IGAD and between IGAD and other international organizations, lack of financial support, variation of format, scale and accuracy of data/information between and within different sectors, lack of modern non-sector-oriented data/information collection systems, lack of adequate computing assisted data processing facilities for GIS and remote sensing using PCs, lack of E-mail connections and limited data/information exchange in the subregion.

Networking of institutions, agencies and bodies

Definition:

A network may be visualized as a set of technical administrative units with appropriate linkages to realize objectives outlined in articles 16-19 of UNCCD. Thus a network is a set of cooperating units which are actively involved in information collection, analysis and exchange, research and development, transfer, acquisition, adaptation and development of technology, capacity building, education and public awareness as spelled out in the articles.

Components:

Desertification network system (DNS) may be structured at all levels from bottom up, namely, national, subregional, regional and international. Administrative structure should be provided in each network to cater for the various activities outlined in articles 16-19.

A national DNS may consist of sectorial units (Agriculture, Forestry, Soils, etc.) and each sectorial unit should have sub-units for research, development programmes, data/information, etc. A national desertification coordinating unit should complete the set.

The subregion DNS may consist of a set of national units of MCs topped by a subregional coordinating unit.

Functions:

The functions of DNS stems from the activities embodied in articles 16-19 of UNCCD.

RATIONALE

The programmes designed to combat desertification in IGAD are sector-oriented. Thus, their overall impact is minimal. Two problems are immediately obvious: lack of integrated national action programmes and lack of a coordination mechanism. The solutions of these two problems are provided for in the UNCCD. The UNCCD embodies the establishment of a network including governmental and non-governmental organizations.

Objectives:

Will be in line with those presented in Annex 1 of terms of reference (TOR).

METHODOLOGY

A team of six experts constituting a Steering Committee (SC) will be selected to undertake phase I of CST's work plan as outlined in the TOR. Several meetings will be held in Khartoum to elaborate the methodology of carrying the various tasks defined in the TOR. A questionnaire encompassing all pertinent questions and requirements to realize set tasks and thematic needs of articles 16-19 of UNCCD will be prepared.

Prior to visiting, MCs contacts will be established with their UNCCD focal points (CCDFP) to arrange for the visit and name of technical contact person (TCP) to participate in activity of the MC. The visits will include meeting with governmental organizations, NGOs, and CBOs including women and youth organizations. When all the intended visits have been accomplished a draft Country Profile Paper (CPP) will be prepared and then a national workshop will be organized to discuss the CPP.

After completing the visits to MCs the SC will study, analyse and evaluate the CPPs of the MCs and write up the first draft of the document entitled Networking of Institutions, Agencies and Bodies in IGAD subregion for implementation of the UNCCD.

Then a subregional workshop will be held in Khartoum and will be attended by TCPs of MCs, executive secretary of IGAD and representatives of relevant international organizations. The first draft of the document will be presented for discussion. The recommendations, comments, etc. of the workshop will be submitted to the CST. Country profile papers may also be forwarded.

ACTIVITIES AND DURATION

1. Preparatory meetings of SC (7 days).

2. Visits of sub-teams (2 experts each) to MCs to meet with CCDFP and TCP, visiting different institutions agencies and bodies, writing a CPP, organizing a national workshop and writing the final CPP (14 days).

3. Final meetings and activities of SC in Khartoum studying, analysing and evaluating the CPPs (3 days), writing the document (7 days), subregional workshop (1 day), writing the final document (2 days) and unforeseen circumstances (2 days).

INPUTS

Personnel type

Experts:

Six experts with the following specialization will be involved: Agriculture, Soil Science, Forestry, Socio-economics, Range Management and Desertification.

National TCPs and MCs

Supporting staff:

Data management expert + 5 typists

Sundries

Logistical support

BUDGET

Activity 1

- Man-days: 6 (experts) x 7 (days) x $200	= $	8 400
- Logistics	= $	300
Sub-total	= $	8 700

Activity 2 (Budget for one MC)

- Man-days: 2 (experts) x 17 (days) x $200	= $	6 800
- Technical contact persons = 1 x $500	= $	500
- Logistics (computer, car services, etc.)	= $	2 000
- National workshop	= $	1 000
- Return air-tickets = 2 (experts) x $1 000	= $	2 000
Sub-total	= $	12 300
Budget for 5 MCs = 5 (MCs) x $12 300	= $	61 500
Budget for Sudan (Extra):		
$6 800 (Man-days) + $500 (Logistics) + $1 000 (workshop)	= $	8 300
Sub-total	= $	69 800

Activity 3

The visits will include meetings with governmental organizations, non-governmental organizations and community based organizations (CBOs) including women and youth.

-	Man-days = 6 (experts) x 15 (days) x $200	= $ 18 000
-	Man-days = 5 (TCP) x 4 (days) x $150	= $ 3 000
-	Subregional workshop	= $ 2 000
-	Logistics	= $ 1 000
-	Return air-tickets = 5 (TCP) x $1 000	= $ 5 000
	Sub-total	= $ 29 000
	Total budget = $8 700 + $69 800 + $29 000	= $ 107 500

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REPORT ON ONGOING WORK BEING DONE ON BENCHMARKS AND INDICATORS

Note by the secretariat

I. INTRODUCTION

1. By decision 10/9, adopted at its tenth session, the Intergovernmental Negotiating Committee for the Elaboration of an International Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (INCD), taking note of the report contained in document A/AC.241/INF.4 on ongoing work being done on benchmarks and indicators for measuring progress in the implementation of the Convention, requested the interim secretariat:

(a) To continue its work on benchmarks and indicators begun in response to decisions 8/8 and 9/12 and solicit written submissions from interested members of the Committee and competent organizations, to be received by 17 March 1997;

(b) To continue the informal open-ended consultative process established pursuant to decision 9/12;

(c) To further expand the work to encompass the Asian, Latin American and Caribbean regions;

(d) To report to the Conference of the Parties at its first session on the work undertaken, with particular reference to measurement indicators.

2. The section below constitutes the report requested in subparagraph (d).

II. CONTRIBUTIONS FROM INCD MEMBERS AND INTERNATIONAL ORGANIZATIONS

3. The secretariat received written contributions from 10 Committee members and 5 international organizations. The comments and suggestions concerned indicators relating to Convention implementation, benchmarks and environmental impact indicators. There may be contradictions and overlaps, as is often the case when a collection of viewpoints is summarized. The views expressed may be summarized as follows:

A. Indicators to measure the implementation of the Convention

(a) Annex 1 to document A/AC.241/INF.4, submitted at the tenth session, affords a good base for indicators of the implementation of the Convention. Additional work should be done to clarify the evaluation parameters and the definition of a standard report on indicators so as to ensure that the reporting system is as simple and direct as possible. The result might be used by the Committee on Science and Technology to draw up directives for the Parties and regional and subregional organizations in the preparation of their reports on the implementation of the Convention;

(b) The matrix of implementation indicators put forward at the tenth session of INCD should be made widely available, and should include instructions for use. It should be tested in countries that are well advanced in the formulation of their National Action Plans (NAPs) in Africa, Asia, Latin America and the Caribbean;

(c) Machinery will be set up to revise the suggested matrix as the need arises, including indicators on the media (audio-visual, written etc.) and on consciousness-raising among the local population;

(d) A standard minimum set of indicators applicable worldwide needs to be established, along with indicators suited to each region in order to take account of specific regional features;

(e) Indicators and evaluation parameters need to be weighted for the quantitative evaluation of the data. Implementation in various conditions will then be evaluated by the sum of the number of points obtained;

(f) There is a clear difference between the notions of benchmarks and indicators;

(g) Benchmarks allow for a basic level of surveillance in that they are defined, agreed standards that may change over time, or afford a reference point for comparing the values of indicators at a given moment or at other periods over time. Benchmarks for implementation indicators, such as average performance in terms of indicator value in a region or subregion, could be established. On the other hand, the lack of data could be a problem when establishing benchmarks for impact indicators.

B. Impact indicators

(a) It is important to emphasize that indicators describing the severity and extent of desertification and its socio-economic consequences could be of use in developing implementation indicators. Indicators of rehabilitation follow-up and the effects of countermeasures, together with socio-economic indicators, should therefore be developed further, while continuing to work on indicators of the state of the area under consideration and degradation by reference to previous findings or protected areas.

(b) The evaluation and application of impact indicators in the countries concerned is lagging well behind the many other undertakings relating to the conceptual, theoretical and scientific development of indicators embarked upon since 1992. Rare are the proposed indicators that have been tested, calculated and applied. The problem is related to the complexity of the work, the skills available and the cost. These constraints serve to deter many countries, including developed ones.

(c) A ground-up approach, drawing on local knowledge which may yield basic indicators that are understood and applied by local communities, should be developed. The indicators thus arrived at will be validated and integrated at the national or regional scale at which decisions are taken.

(d) Priority in relation to impact indicators should crystallize around the quantitative analysis of local experience in this area, the cost and effectiveness of bilateral and multilateral projects, the relationships between local- and national-level impact indicators, and methodological and operational aspects.

(e) The recommendations concerning future work on impact indicators in paragraphs 9, 10 and 11 of note A/AC.241/INF.4 are important. The Committee on Science and Technology could, at the request of the Conference of the Parties, take on this task, assisted by an ad hoc group like that convened by the secretariat in November 1996 and July 1997. It could take stock of the ongoing work on impact indicators, identify gaps in knowledge for priority undertakings and look for partners to carry out a work plan on desertification indicators. Its responsibilities would be:

(i) To take stock of ongoing work on indicators;

(ii) To look for partners to carry out a work plan;

(iii) To identify lead agencies in the light of the tasks to be assigned, with due regard for topics, the scale being considered, and the resources and skills of each institution; and

(iv) To follow up on and evaluate the results.

III. COMMENTS BY ORGANIZATIONS ON THE ONGOING WORK ON INDICATORS

4. A number of bodies are studying environmental impact indicators, including those describing the extent and degree of desertification and its

socio-economic consequences that may be of use in developing indicators for the implementation of the Convention. The United Nations Environment Programme (UNEP) and the Office to Combat Desertification and Drought (UNSO) offered the following comments:

(a) UNEP will complete the second edition of a desertification atlas, probably in September 1997. The atlas contains indicators on desertification at the local and national level. It identifies useful approaches to the struggle against desertification. It refers to the links between poverty, migration and security, and between desertification, loss of biodiversity, global warming and drinking-water resources.

(b) UNSO has undertaken a study of the population in dry areas, notably in Africa. Similar studies are planned for the Asian and Latin American regions. The United Nations Development Programme (UNDP) and UNSO, in collaboration with UNEP and other institutions, are working on the formulation and design of a desertification evaluation and monitoring initiative taking due account of the socio-economic dimensions of desertification.

5. Pursuant to decision 10/9, adopted at the tenth session of INCD, the secretariat has continued the informal open-ended consultative process and brought together a group of participants in Ottawa, Canada, from 15 to 17 July 1997 with support from the Canadian, International Development Research Centre. The group's mandate was to devote particular attention to the honing of implementation indicators and the development of a method of establishing impact indicators.

6. The report of this group will appear under the symbol ICCD/COP(1)/CST/3/Add.1.

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SUPPLEMENTARY REPORT ON WORK ON BENCHMARKS AND INDICATORS

Note by the Secretariat

PRELIMINARY COMMENTS

1. In response to decision 10/9 of the Intergovernmental Negotiating Committee for Desertification (INCD), taken at its tenth session, the Secretariat continued the informal open-ended consultative process on benchmarks and indicators established in accordance with decision 9/12. In accordance with decision 10/9, the process includes representatives from the Asian and Latin American and Caribbean regions, as well as other regions. In continuing the process, the INCD requested the interim Secretariat to put particular emphasis in its work on benchmarks and indicators on:

a) the further elaboration of implementation indicators; and

b) the development of a methodology for determining impact indicators.

2. A number of the participants in the process attended an informal consultative meeting at the International Development Research Centre in Ottawa, Canada from 15-17 July 1997. As anticipated in paragraph 6 of document ICCD/COP(1)/CST/3, a report on the conclusions of the Ottawa meeting follows.

CONCLUSIONS OF THE INFORMAL CONSULTATIVE MEETING

I. Implementation indicators

3. The group reviewed the report contained in A/AC.241/Inf.4 and the following additional comments were made on the work reflected in that document:

a) the existence of a national Environmental Action Plan for Sustainable Development should be added as an indicator as Annex 1.A.5;

b) the evaluation parameters and remarks contained in Annex 1.B (NAP formulation) should be applied as well to the formulation of subregional and regional action plans, mutatis mutandis;

c) data used in developing and applying implementation indicators under section 4 of the document should be gender-disaggregated;

d) under Annex 1.A.2 (Effective programmes implemented in compliance with priority fields), reference to government policies on gender would also be appropriate as an evaluation parameter. The number of women involved in the process could also be specified as an evaluation parameter under Annex 1.C.3 (Effectiveness of measures in local capacity building).

II. Elements for a Method to Determine Impact Indicators

A. Introduction

4. The following report represents the conclusions of the informal consultative meeting on elements for a method to determine impact indicators. The report focuses on impact indicators because they are necessary to assess the effects of actions to implement the United Nations Convention to Combat Desertification (CCD).

5. Although a great of deal of work has been done on indicators, it is necessary to have a method of developing and testing impact indicators that meet the specific requirements of the CCD.

6. Indicators of impact will help the actors at the different levels to assess their own progress, review their priorities and improve their positions with respect to combatting desertification, mitigating the effects of drought and improving the lives of people in affected areas.

7. The informal group has produced elements of a method to determine impact indicators. These elements will need to be elaborated into a complete method, for adoption and testing by the parties at national, sub-national and local levels.

8. Noting the task to carry forward consultation on the development of benchmarks and indicators for assessing the implementation and impact of the CCD, the group recognizes two distinct uses of the term, "benchmark":

a) a representative site where detailed studies are conducted and results are extrapolated to a larger area that is represented by that site.

b) a set of data called a baseline that serves as the starting point for evaluating subsequent trends in an indicator or issue.

Hereafter, the specific terms "representative site" and "baseline" will be used rather the more general and confusing term, "benchmark".

9. In considering the development of a method, the group recalled the principles and the provisions of articles 4, 2a, 8(1) and 10 of the CCD.

B. Inventory and Evaluation

10. The group recommended that each party to the CCD undertake a comprehensive inventory and evaluation of the biophysical and socio-economic conditions of the affected areas and of capacities in their countries.

C. Steps in the Method

11. The group proposes that the method consist of the following steps:

a) Define the Objectives

i) The global objectives (article 2, paragraph 1) are to:

- combat desertification
- mitigate the effects of drought
- contribute to achievement of sustainable development

ii) The contributing objectives (article 2, paragraph 2) are to:

- improve land productivity
- rehabilitate, improve and manage sustainably land and water resources
- improve living conditions at the community level

iii) The specific objectives will be defined by the action programs.

b) Define the Spatial Levels and the Actors at Each Level

i) The actors involved in developing and using indicators will be different at each spatial level. For example:

. Global	Appropriate international bodies
. Regional	Appropriate international and regional bodies
. Sub-Regional	Appropriate international, regional and sub-regional bodies
. National	National Coordination Units (NCUs), Non-Governmental Organizations (NGOs) with links to relevant institutions
. Sub-National	Responsible Sub-Nationals, e.g. state, provincial, district, departmental; NGOs with strong functional links and assistance to NCU's
. Local	Communities, farmers, women, with support of extension agents, researchers, etc. with Sub-Nationals and NGO assistance

ii) Research organizations are necessary to provide support at all levels.

c) Identify Key Issues

12. A great many issues are referred to in the text of the Convention. It is likely that the actors at each level will wish to focus on a few key issues that need to be identified and prioritized together with the expected results.

d) Design Indicators and Collect Data

13. The design of indicators and collection of data is an iterative process. It is necessary to select indicators for which data are already available or can be obtained at reasonable costs. At the same time, it is important to know what indicators would best portray the key issues and expected results that have been identified.

14. The people who should design the indicators and collect the data are the actors at the spatial level concerned, assisted by organizations at other levels as required. Global and regional indicator sets should ensure comparability across regions.

i) Selection and analysis of indicators

- Select a minimum set of indicators. Ideally one indicator per issue and expected result.
- Define each indicator preferably using consistent terminology.
- Identify the required data and the means and methods of collecting them. It is of course necessary to analyze the availability, collectability and cost effectiveness of the data.
- If a given indicator is not available, select a suitable proxy.

. Evaluate each indicator for:
  - how well it represents the issue and expected result
  - how well it covers the spatial level
  - how reliable it is methodologically

  Evaluation should include feedback from the users.
. Periodically review indicators and add, delete and modify as needed.

ii) Collection of Data

. Determine when data should be collected and reported.
. Adopt policy for:
  - prioritizing core data sets
  - mechanisms for funding data sets
  - data exchange
  - documentation (precision and accuracy)
  - accessibility
. Collect baseline data on socio-economic and bio-physical conditions of affected areas.
. Collect gender specific data where relevant.

e) Measure and Map Indicators

For each indicator:

i) collect and analyze data
ii) establish a baseline
iii) define performance criteria
iv) present results

f) Combine Indicators

15. It is necessary to combine or aggregate the indicators to provide decision-makers (at any level) with a few clear messages. Aggregation is done in steps:

- indicators to issues
- issues to sets of issues
- sets of issues to overall objectives

D. Operational Monitoring and Evaluation Systems

16. Principal guidelines required to achieve an operational monitoring and evaluation systems include:

i) a permanent network of representative sites based on agro-ecological homogeneity
ii) an environmental information system based on some database management procedures
iii) exchange of information agreements on partnerships and scientific cooperation

17. The steps necessary to implement an operational monitoring and evaluation system include:

i) specifying the needs for the users and decision-makers
ii) undertaking a comprehensive evaluation of existing situation including availability of information
iii) conducting multi-disciplinary studies and collecting minimum data sets at the representative sites to facilitate comparison across agro-ecological zones
iv) collecting the appropriate minimum data sets
v) defining an appropriate time interval for monitoring and evaluation in accordance with user needs and levels
vi) strengthening national capacities for monitoring and evaluation

E. Information Systems

18. In order to ensure a systematic feedback to the users and decision makers, steps for establishing an effective information system should include:

i) determining information needs of users and decision makers
ii) establishing baseline data sets for assessing trends (i.e. start with all the information that is available)
iii) reviewing linkages with other users of the national system and synergies with other conventions
iv) providing for networking:
- horizontally among sectors that are using and providing data
- vertically among spatial levels
v) linking local knowledge and data centres emphasizing and utilizing grassroots indicators
vi) making agreements on information exchange, partnerships and scientific cooperation
vii) capacity building and external assistance through:
- assessment of needs
- providing training, facilities, methods, materials and finance
viii) preparing information products on environment, people and desertification
ix) assessing costs and benefits
x) ensuring effective dissemination and access

F. Application at the Local Level

19. Recognizing the complexity of the problem, the group offers guidance on how the method could be applied at the local level:

i) seeking feedback from farmers/land users (mostly women) including through interviews and questionnaires
ii) holding village meetings
iii) training teams of facilitators to help villagers to conduct their own assessments of their well-being and the condition of the land
iv) ensuring that these assessments are part of local action programs
v) providing local assessments and action programs to influence higher level (e.g. national) assessments and action programs
vi) developing new research frameworks to accommodate farmer level information (including traditional knowledge) as well as scientific information

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REPORT ON WORK OF OTHER BODIES PERFORMING WORK SIMILAR TO THAT ENVISAGED FOR THE COMMITTEE ON SCIENCE AND TECHNOLOGY

Note by the Secretariat

I. INTRODUCTION

1. At the tenth INCD session, the Secretariat presented a report (A/AC.241/67) identifying bodies of other relevant organizations and conventions performing work similar to that envisaged for the Committee on Science and Technology (CST). In its decision 10/8, taken at its tenth session, the INCD requested the secretariat to update its report, and in that connection to:

(a) establish an informal open-ended consultative process to assist in this work;

(b) identify as well, in addition to the categories already identified, regional and subregional organizations with bodies performing work similar to that envisaged to be undertaken by the CST; and

(c) take account of comments on this subject, including those relating to transfer of technology, in Working Group II during the tenth session of the INCD, as well as written submissions from interested members of the INCD and competent organizations.

2. In response to the INCD request, the Secretariat corresponded with INCD members and relevant regional and subregional bodies and organizations. It received fifteen new replies. Part II of this report reflects the additional, updated information.

3. One organization noted that the "Directory of Arid Land Research Institutions-1995" published by the office of Arid Land Studies at Arizona University, the Food and Agriculture Organization of the United Nations (FAO) and the United Nations Environmental Programme (UNEP), should provide a useful source of information for bodies doing work similar to that envisaged for the CST.

4. One INCD member also noted that document A/AC.241/67 usefully explored potential cooperation between the CST and other bodies, but that the mechanisms and modalities of the cooperation in question needed to be considered by the COP in relation to the Convention.

II. NEW AND UPDATED INFORMATION

5. The following bodies or organizations provided new, and in one case updated, information on substantive fields of possible cooperation:

International Organizations

(a) *Commonwealth Agricultural Bureaux (C.A.B.International):* use of relevant database with regard to soils and crops that adapt to arid conditions; disease and health in arid areas, particularly in new crop management systems.

(b) *International Plant Genetic Resources Institute (IPGRI):* patterns of genetic diversity in wild forage species; *in situ* conservation in the Sahel region to monitor vegetation change over years; strategies for *in situ* conservation and utilization of plant genetic resources in desert-prone areas of Africa; *in situ* conservation of agricultural biodiversity.

(c) *Sahara/Sahel Observatory* (update): water and soil conservation, land tenure systems, and shared water resources.

Regional organizations

(d) *Arab Organization for Agricultural Development (AOAD):* technologies for increased productivity of rainfed agriculture in Arab countries; assessment of forestry resources; green belts to combat desertification and desert encroachment in the Arab region; range resources in the Arab region; land and water resource management, land reclamation and water harvesting techniques; natural resource inventories through standardized geo-referenced data bases.

(e) *Center for Environment and Development for the Arab Region and Europe (CEDARE):* surveys of quality and quantity of freshwater resources; low-cost technology for water conservation; basin-wide joint management of transboundary water resources; feasible technology transfers for soil conservation.

(f) *Regional Centre for Services in Surveying Mapping and Remote Sensing (RCSSMRS):* research, training and provision of information on natural resource and environmental data through the use of techniques such as surveying, mapping, remote sensing and geographic information systems.

Subregional organizations

(g) *Arab Center for the Study of Arid Zones and Drylands (ACSAD):* databases of water resources, soils, plants, animals and climatology; development of high yielding, drought tolerant and disease resistant wheat and barley varieties; development of genepools of drought-tolerant fruit trees; establishment of genebanks for the collection of important sheep and goat strains.

(h) *Agro-Hydro-Meteorological Regional Center of the Permanent Interstate Committee for Drought Control in the Sahel (CILSS):* collection and analysis of biophysical and socio-economic data for the purposes of food security and natural resource management; transfer of meteorological knowledge and know-how to the national level and centres of production.

(i) *Institute of the Sahel (INSAH) of CILSS:* options for developing food security and natural resource management in the Sahel; scientific and technical research in the CILSS subregion; inventorying and evaluating research institutions and organizations in CILSS countries; follow-up indicators for implementation of the Convention; promotion of regional and subregional cooperation in research and development.

(j) *Southern African Community (SADC)/Southern African Center for Cooperation In Agricultural Research and Training (SACCAR):* sorghum, millet and grain legume improvement; land and water management research; agroforestry research; development of national plant genetic resources management.

Non-governmental organizations (NGOs)

(k) *Environnement et Développement du Tiers-Monde (ENDA):* traditional know-how and practices in rural agroforestry, land administration, and combating land degradation; transfer and promotion of appropriate energy technologies.

(l) *International Commission on Irrigation and Drainage (ICID):* control of evaporation from soil and open water surfaces in water harvesting structures; impact of drought on irrigated agriculture; food security and sustainable development in Africa.

(m) *Institute for Development Anthropology (IDA):* economic activities of women in pastoral and agropastoral societies in Africa, the Middle East and Central Asia; conventional dam management of floodplain rivers in the dry tropics; forestry in grazing systems.

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REPORT ON MODALITIES OF THE WORK OF THE COMMITTEE ON SCIENCE AND TECHNOLOGY ON INVENTORIES OF RESEARCH AND TRADITIONAL KNOWLEDGE, AND RESEARCH PRIORITIES

Note by the Secretariat

1. In its decision 10/7, taken at its tenth session, the Intergovernmental Negotiating Committee for the Convention to Combat Desertification (INCD) invited members to submit to the Interim Secretariat suggestions on the modalities of the work of the Commission on Science and Technology (CST) on:

(a) inventories of research, traditional and local technology, knowledge, know-how and practices; and

(b) research priorities.

It further requested the Secretariat to submit a report based on the submissions for consideration by the CST at its first session. This note is based on replies from ten INCD members and three organizations and is intended to constitute that report.

Inventories of research

2. The feasibility and utility of preparing global inventories of research was questioned by a number of INCD members and organizations. Some members expressed the view that such preparation on a global basis would be cumbersome and costly, and the purpose unclear. A fuller discussion at the CST would need to precede any further work in this area.

3. There may be a role for the CST in the standardization of the presentation of the data to be used in research inventories developed by regions or subregions.

Inventories of traditional knowledge

4. The value and relevance of traditional and local technology, knowledge, know-how and practices is recognized in the Convention to Combat Desertification (CCD) (article 18, paragraph 2(a); article 20, paragraph 6). As to inventories of traditional and local technology, knowledge, know-how and practices, a number of initiatives have already taken place, particularly in the Sahel region. In 1997, the Permanent Interstate Committee for Drought Control in the Sahel (CILSS) undertook a study of rural know-how in the areas of water and soil conservation, protection and restoration of soil and the analysis of data in management of natural resources. The United Nations Environment Programme (UNEP) has an ongoing initiative identifying successful land use practices, using indigenous

and new technologies. UNEP has joined with others in identifying and disseminating successful soil and water conservation techniques, and collaborates with the International Development Research Centre of Canada in identifying local and traditional indicators. As well, the Observatoire du Sahara et du Sahel (OSS) has produced "Stratégie 2000 de l'OSS" dealing with this matter.

5. Article 18, paragraph 2 (a) of the Convention provides that: "The Parties shall, according to their respective capabilities, and subject to their respective national legislation and/or policies, protect, promote and use in particular relevant traditional and local technology, knowledge, know-how and practices, and to that end, they undertake to:

(a) make inventories of such technology, knowledge, know-how and practices and their potential uses with the participation of local populations, and disseminate such information, where appropriate, in cooperation with relevant intergovernmental and non-governmental organizations."

6. Thus, the CCD contemplates that such inventories will be prepared by the Parties themselves (which could be undertaken in the local or regional context).

7. Accordingly the CST might wish to focus on developing methodologies for information-sharing, disseminating inventories and ways to link traditional knowledge to modern technologies and methods. It might request the Secretariat to prepare a commentary on the overall role of traditional and local technology and how it might be linked to modern technology, where appropriate.

8. The methodology developed for preparing inventories might take account of the need to examine factors leading to the success or failure of certain techniques.

Research priorities

9. Research priorities vary from country to country, region to region, continent to continent. Separate subjective and objective variables are at play. The Convention addresses research priorities in article 17, paragraph 2 as follows: "Research priorities for particular regions and subregions, reflecting different local conditions, should be included in action programmes. The Conference shall review research priorities periodically on the advice of the Committee on Science and Technology."

10. Thus the Convention approaches the question of research priorities by recognizing the importance of research priorities for particular regions and subregions being included in action programmes, and giving to the COP the role of periodically reviewing such priorities, once established in the regional or subregional context, on the advice of the CST.

11. The draft terms of reference of the CST (ICCD/COP(1)/2) are consistent with this approach. Article 2, paragraph (a)(iv) provides that the functions of the CST include advising "on possible research priorities for particular regions and subregions, reflecting different local conditions."

12. In this context, it may be appropriate for the CST to embark on work on research priorities once it is in receipt of national or other reports submitted in accordance with article 10, paragraph 2(g) and information exchanged in the context of article 16. One role of the CST in this area might thus be to monitor research priorities reported in the national reports. This manner of proceeding would be consistent with the demand-driven approach and local participation emphasized by the Convention, and thus be closely linked to implementation. The CST could also then discuss and advise on participative and demand-driven methodologies for the setting of research priorities. This work might also be enhanced following the setting up of a network of experts and organizations.

13. The view was expressed in the submissions that in the prioritization process, an assessment is required of the degree to which research carried out has been able to address real problems on the ground.